REQUIREMENTS FOR QUALIFIED REPORTING ENTITIES

June 2010

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1 Introduction

This document identifies the requirements that must be met in order to be considered a Qualified Reporting Entity in the Michigan Renewable Energy Certification System (MIRECS). It also contains the protocol for collecting and transferring generation data from participating Qualified Reporting Entities to the Michigan Renewable Energy Certification System for the purposes of creating MIRECS Renewable Energy Certificates. Operating Documents for the Michigan Renewable Energy Certification System can be found at http://mirecs.org

2 Qualified Reporting Entity Guidelines

As a Qualified Reporting Entity (QRE), the reporting party will adhere to the following guidelines:

1. A QRE shall create a QRE account in the Michigan Renewable Energy Certification System. The Michigan Renewable Energy Certification System Administrator will validate the submitted registration information.
2. Reported data shall include for each Project the amount of renewable energy generated by each Project, if any, and separately the amount of advanced cleaner energy, if any, generated by the Project.
3. Reported data shall be inherently reliable and fully auditable.
4. Reported data shall be financial settlement quality data recorded by revenue quality meters which comply with the ANSI-C12 standard. Such meters include MV-90 system, or pulse accumulator readings collected by the Balancing Authority's energy management system.
5. A QRE shall submit to the Michigan Renewable Energy Certification System data for their registered Project(s) on the basis agreed upon between the QRE and each Michigan Renewable Energy Certification System Account Holder that has designated them as QRE.
6. A QRE may report data for aggregated small generators that share the same Essential Generation Characteristics. Refer to Appendix C in the *Michigan Renewable Energy Certification System Operating Procedures*[1] for the list of Essential Generation Characteristics.
7. If the QRE also functions as its own balancing authority and owns Projects, or is subject to a renewable portfolio standard and is retiring Renewable Energy Certificates, it shall demonstrate that the entity or group within the QRE or its affiliates that is responsible for reporting qualifies as independent from the entity or group within the QRE or its affiliates engaged in marketing functions or REC retirement under the principles defined

[1] http://mirecs.org/

by the FERC's Independent Functioning and No Conduit Rules.[2] This separation should be specific to making the QRE independent from the marketing/retiring entity.[3]

8. Projects will adhere to regular internal and external validation and verification procedures that may include but are not limited to:
    a. Regular Meter Calibration – based on the size of the Project; and
    b. Internal Meter Data Validation.
9. QREs will upon request provide the MIRECS Administrator with regular internal and external audit and verification reports that may include but are not limited to the use of:
    a. Parallel Meters
    b. Internal Meter Data Validation
    c. Regular Meter Calibration – based on the size of the Project
    d. Meter Calibration Tools calibrated against national standards
    e. Meter Data System's Integrity Validation which includes an analyst validation check and historical comparison
    f. Internal Audit Process
    g. Third Party Consultants on Energy Procurement Activities
    h. Balancing Authority's annual audit results

3 Qualified Reporting Entity Candidates

Qualified Reporting Entities must:

- Be properly authorized to operate as a business in the State of Michigan;
- Be able to demonstrate financial independence from each applicable Project Owner's transactions for the sale of power and disposition of Renewable Energy Certificates;
- Be able to demonstrate independence from MIRECS General, Project, and Michigan Electric Service Provider accounts managed by the same company; and
- Retain each month's hourly generation data for a minimum of 5 years from the date of submission to the MIRECS Administrator.

Qualified Reporting Entities for the Michigan Renewable Energy Certification System may include but are not limited to:

- Balancing Authorities

[2] See *Standards of Conduct for Transmission Providers*, Docket No. RM07-1-000, Order No. 717, 125 FERC ¶ 61,064, 18 CFR §§ 358.5-.6 (Issued October 16, 2008).
[3] A variance to this rule maybe granted by the MIRECS Administrator in cases where the Balancing Authority is too small to comply with a segregation of duties requirement.

- Electric Service Providers
- Generator Aggregators
- Meter Readers
- Independent Third Parties

4 File Description

4.1 File Description

The data shall be in ASCII Text with data fields delimited by commas (Comma-Separated Value (CSV) format). The Generation file has the following general structure:

<column1Name>,<column2Name>,…
<column1Value>,<column2Value>,…

If the Column Name(s) and Value(s) do not conform with the above specification, the application will indicate a fatal error and the file will not be loaded.

TABLE 1: GENERATING DATA FILE CONTENT STRUCTURAL ELEMENTS

<columnXName>	a human-readable label for the X'th column of CSV data
<fieldXValue>	a value for the X'th column of CSV data. There can be any number of data rows in a file. Data types are not quoted.

The following example shows a conforming input file.

MIRECSID,REPORTINGID,VINTAGE,FROM,TO,TOTALMWH,ONPEAKGEN
1,2,01/2001,01/01/2001,01/31/2001,100,50

Null Values
If null is valid as a field value for a given field, the data may be optionally omitted in the file. For example, the following line indicates the last field is null.

1,2,01/2001,01/01/2001,01/31/2001,100,,

5 Field Definitions

The following sections define the data contained in each extract file accepted by MIRECS.

5.1 Generation Extract for MIRECS Project

The generation extract provides total generation by unit for a given month. This file will be generated and delivered from the QRE. The QRE will use its Michigan Renewable Energy Certification System login and password to access the MIRECS System, and upload the file to the MIRECS portal.

The fields are as described in Table 2.

TABLE 2: FILE FORMAT

	Data Field	Type	Description
1	MIRECSID	Integer	Unique MIRECS Project identifier for the unit assigned by MIRECS upon Asset approval. Do not include the prefix 'GEN'
2	REPORTINGENTITYID	Character	Unique identifier for the unit assigned by its Control Area or Reporting Entity. If MISO is the QRE, the CPNODE shall be used
3	VINTAGE	Character (7)	Month and year of generation, formatted as MM/YYYY for any month in the current Reporting Period
4	BEGINDATE	Character (10)	Begin month-day-year of generation output period formatted as MM/DD/YYYY
5	ENDDATE	Character (10)	End month-day-year of generation output period formatted as MM/DD/YYYY
6	TOTALMWH	Number	Total MWh for the Reporting Month
7	ONPEAKGEN	Number	Total Metered MWh of the generator's On Peak Generation

6 File Loading

All files will be loaded into MIRECS using a valid active MIRECS Login and password that is associated with an active Qualified Reporting Entity MIRECS Account type.

6.1 Loading Generation Extract File for MIRECS Projects

Only Account Holders of type "Qualified Reporting Entity" or "MIRECS Administrator" have the ability to load the Generation Extract File.

After logging into their MIRECS Account, the Account Holder should locate the Meter Data Loading module. To locate the desired generation output file, the user selects the Meter Data Loading module's "Browse" button to display a pop-up screen where the user can locate the desired file on computer or network drives. After selecting a file, the user selects the "Upload Now" button to upload the file. A current period output file can be loaded as many times as needed, adhering to the four rules listed in Table 3.

TABLE 3: FILE FORMAT

Data Reloading Rule	Description
Rule 1, reloading data when the existing data is already "Account Holder Accepted"	After an Account Holder has explicitly accepted the posted output data, if a file of the same, or different, data is reloaded, MIRECS will reject the data and notify the reporting entity that data for this unit has already been accepted. The status of the existing data will not change. To override this rule, see Rule 4 below.
Rule 2, reloading data when the existing data is "MIRECS Accepted" or "Account Holder Disputed"	Reloading the data file will overwrite any data that was previously loaded for that unit, and will set the new data status to "MIRECS Accepted".
Rule 3, reloading data when the existing data is "MIRECS Administrator Accepted", "MIRECS Administrator Disputed", or "MIRECS Administrator Adjusted"	If a file of the same, or different, data is reloaded, MIRECS will reject the data and notify the reporting entity that this unit's data is either "MIRECS Administrator Accepted" or "MIRECS Administrator Disputed" and therefore cannot be accepted. The status of the currently posted data will not change. To override this rule, see Rule 4 below.
Rule 4, data file reloaded by the MIRECS Administrator	The reloaded data will overwrite all previously loaded data for this unit, regardless of its current status

Before posting the output to the MIRECS database, the system validates the uploaded data. When all validations are successfully completed, the data is loaded into the database and written to the Generation Activity Log. The system notifies the Account Holder via email that:

- Generation output data has been loaded for specific Projects in the account; and
- Data is available to be reviewed for accuracy, then approved or disputed.

Description: Before generation output data is posted to any MIRECS databases, the system performs the validations listed in Table 4

TABLE 4: FILE FORMAT

Validation Type	Description	Failure Result
QRE validation	Is the QRE designated to report output data for the Project, as classified by the Account Holder in the Project's registration information?	System rejects data, sends QRE an error message that they are not designated to report on this Project, and creates an Exception Report for MIRECS Administrator review.
Engineering Feasibility Assessment	As described on the next page, feasibility is determined using a formula that includes the amount of generation reported (MWh), the duration (begin/end), the nameplate capacity, and the capacity factor or the Annual Maximum Energy Output.	Soft-warning to the QRE that the MWh have failed the Engineering Feasibility for the Project. The QRE is allowed to continue posting the data, but it will remain in a pending state. Both the MIRECS Administrator and the Account Holder will be notified of the failed feasibility estimate. Also, the MIRECS Administrator will have to review the data (and approve it) before it can become eligible for Certificate Issuance.
Begin/End Duration overlap/gap check	For the duration of generation (Begin MM/DD/YYYY and End MM/DD/YYYY), are there gaps or overlaps from the data reported for the previous reporting period?	System rejects the data and sends an error message to the QRE that the duration reported for this unit has either gaps or overlaps from data reported for a previous reporting period. Either error message will be specific to the problem – one message for a gap, and another for an overlap.
Current Status of any previously loaded data	If data was previously loaded for the units in the file, what is that data's current status?	See Rules 1-4 in Table 3.

When a QRE submits generation data, MIRECS validates the data to verify its engineering feasibility before writing it to the database. To perform the validation, MIRECS uses the following required variables that were defined in Page 1 of the Project Registration screen:

- Nameplate Capacity
- Capacity Factor or Maximum Annual Capacity
- Duration – defined as the length of period, in hours, for which generation activity is being reported (this is calculated by the system given the Begin Date/End Date in the file or entered manually)

Data validation is performed for both current period reporting and prior-period adjustment reporting, regardless of whether the data is loaded as a file or entered manually in the unit's Self-Reporting screen. To determine the feasibility of the submitted data, MIRECS will use the following equation:

(nameplate capacity) * (capacity factor) * (number of hours in the duration) * (1.02)

The number of hours in the duration is based on the duration of the generating period each time the information is reported on the Project. To determine the duration value, MIRECS will calculate the number of hours in the generating period (for example, the number of hours in the

generating period with a Begin Date of January 1, 2006 and an End Date of January 31, 2006 would be 744). The 1.02 allows for a margin of error.

If the validation is successful, the data is loaded into the database, and becomes available to the Account Holder to review and then accept, or dispute. If the data is accepted, it will be included in the certificate issuance cycle for the relevant reporting period. For prior-period adjustments, the data will contribute to the next certificate issuance after it was accepted (either by the Account Holder, or auto-accepted by MIRECS).

If the loaded data fails the Engineering Feasibility validation, the QRE will be prompted with a 'soft' warning as to the failed validation. The QRE has the ability to continue posting the data by selecting the "Continue" button on this pop-up screen. If the QRE wishes to continue posting data, MIRECS will send an automated email to both the MIRECS Administrator and the Account Holder that the data loaded for this Project has failed the Engineering Feasibility validation, but the QRE decided to have the data posted to the database anyway. The notification will also state that the data has a status of "MIRECS Pending" until either corrected or approved by the MIRECS Administrator. Data with this status will not contribute to Certificate creation. Alternatively as a result of the failed validation, the QRE can decide not to post the data to the database by selecting the "Cancel" button on this same pop-up screen. Selecting **Cancel** will discontinue the data loading process for the unit in question and no notifications will be sent.